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10/678,703	10/03/2003	Martin Ridgway Handforth	16127ROUS01U	9896

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EXAMINER	
DAVENPORT, MON CHERI S	
ART UNIT	**PAPER NUMBER**
2416	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	**Application No.** 10/678,703	**Applicant(s)** HANDFORTH ET AL.	
	Examiner MON CHERI S. DAVENPORT	**Art Unit** 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _11 May 2009_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-5,8-24 and 27_ is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-5,8-24 and 27_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 137 CFR 1.114. Applicant's submission filed on 5/11/2009 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-5, 8-24, and 27** rejected under 35 U.S.C. 103(a) as being unpatentable over Garahi et al. (US Patent Publication 2003/0091010) in view of Csapo et al. (US Patent Application Publication 2004/0253984) in further in view of daCosta et al. (US Patent Application Publication 2005/0232179).

3. Regarding **Claim 1** Garahi et al. discloses a mobile inter-mesh communication point, comprising ***(see fig. 3, paragraph [0024], wireless mobile access point):***

a first wireless mesh network port configured to operate utilizing at least one of the IEEE 802.11x standard ***(paragraph[0034], lines 7-9, 2 ISM band, the transceivers transmits and receive at any frequency band including 802.11x standards, any frequency band reads on 802.11x standard)*** to participate on a first level wireless mesh network ***(see fig. 3, section 134-1, transceiver 1, see paragraph[0037], line 2-3);*** and

a second wireless mesh network port configured to operate utilizing one least one of the IEEE 802.16x standard ***(see paragraph[0034], lines 7-9, the transceivers transmits and receive at any frequency band including 802.16x standards, any frequency band reads on 802.16x standard)***

However Garahi et al. fails to specifically point out a first wireless mesh network port configured to operate utilizing at least one of the IEEE 802.11x standard the first level wireless mesh network being different from the first wireless mesh network and utilized to implement a wireless access network and a second wireless mesh network port configured to operate utilizing one least one of the IEEE 802.16x standard, the second level wireless mesh network being utilized to implement a wireless backhaul network, the backhaul network interconnecting the wireless access network with higher bandwidth communication resources, and participate on a second level wireless mesh network as claimed.

Csapo et al. teaches a first wireless mesh network port configured to operate utilizing at least one of the IEEE 802.11x standard the first level wireless mesh network being different from the first wireless mesh network and utilized to implement a wireless access network and a second wireless mesh network port configured to operate utilizing one least one of the IEEE 802.16x standard, the second level wireless mesh network being utilized to implement a wireless backhaul network, the backhaul network interconnecting the wireless access network with higher bandwidth communication resources, and participate on a second level wireless mesh network (

see figure 2, see[0037], lines 1-15, access point includes 802.11 and 802.16 , the 802.16 interface as a backhaul network to communicate, 802.11 first level wireless is different from the second 802.16 backhaul network).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Garahi et al.'s invention with Csapo et al.'s invention because Csapo et al.'s invention provides an access point for communicating with mobile stations located in coverage area of an integrated wireless network (see Csapo et al. [0008], lines 1-5).

Garahi et al. in view or Csapo et al. fail to specifically point out 802.16x as a backhaul as claimed.

However daCosta et al. teaches 802.16x as a backhaul (see [0091], backhaul is WiMAX)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Garahi et al. in view or Csapo et al. with daCosta et al. invention because daCosta et al.'s invention provides a solution to addressing huge bandwidth requirements for a mission critical mesh network (see daCosta et al. [0028], lines 1-3).

Regarding **Claim 2** Garahi et al. discloses everything as applied above (*see claim 1*). In addition the mobile inter-mesh communication point includes:

wherein the first wireless mesh network port and the second wireless mesh network port are each part of separate network elements ***(see paragraph[0037], line 2-3, separate transceivers and separate antennas .***

Regarding **Claim 3** Garahi et al. discloses everything as applied above (*see claim 2*). In addition the mobile inter-mesh communication point includes:

further comprising a communication link between the separate network elements ***(see fig. 3, section 136-1, single processor, paragraph[0037], line 4-5, one single processor connecting the separate network elements).***

Regarding **Claim 4** Garahi et al. discloses everything as applied above (*see claim 1*). In addition the mobile inter-mesh communication point includes:

wherein the first wireless mesh network port and the second wireless mesh network port are part of one network element***(see fig. 3, paragraph[0037], lines 1-5, the network elements are all located on one single board computer control).***

Regarding **Claim 5** Garahi et al. discloses everything as applied above (*see claim 1*). In addition the mobile inter-mesh communication point includes:

further comprising switching/routing circuitry configured to interconnect said first wireless mesh network port with said second wireless mesh network port to enable data from the backhaul wireless mesh to be routed onto the access wireless mesh network and to enable data from the access wireless mesh network to be routed to the backhaul wireless mesh network***(see fig3. section 136-1, single processor, paragraph[0037], lines 1-5, all network elements are connect to the single processor control computer(which does the switching/routing)).***

Garahi et al. fails to specifically point out enable data from the backhaul wireless mesh to be routed onto the access wireless mesh network and to enable data from the access wireless mesh network to be routed to the backhaul wireless mesh network as claimed.

Csapo et al. teaches enable data from the backhaul wireless mesh to be routed onto the access wireless mesh network and to enable data from the access wireless mesh network to be routed to the backhaul wireless mesh network (see [0037], lines 7-14, the backhaul network to communicate with public switched telephone network or with the internet)

Regarding **Claim 8** Garahi et al. discloses everything as applied above (*see claim 1*). In addition the mobile inter-mesh communication point includes:

further comprising an interface to a DC power supply ***(see paragraph[0037], lines 5-7, 12V DC power supply).***

Regarding **Claim 9** Garahi et al. discloses everything as applied above (*see claim 8*). In addition the mobile inter-mesh communication point includes:

wherein the interface to a DC power supply is configured to receive power from a vehicle power supply ***(see paragraph[0037], lines 5-7, 12V DC supply of the vehicle).***

Regarding **Claim 10** Garahi et al. discloses everything as applied above (*see claim 8*). In addition the mobile inter-mesh communication point includes:

further comprising a vehicle ***(see paragraph[0037], lines 11-12, mounted in a vehicle, example, city bus).***

Regarding **Claim 11** Garahi et al. discloses everything as applied above (*see claim 1*). In addition the mobile inter-mesh communication point includes:

further comprising a battery***(see paragraph[0037], see lines 5-7, external power supply 12V DC).***

Regarding **Claim 12** Garahi et al. discloses everything as applied above (*see claim 1*). In addition the mobile inter-mesh communication point includes:

further comprising a fuel cell***(see paragraph[0037], see lines 5-7, external power supply 12V DC).***

Regarding **Claim 13** Garahi et al. discloses everything as applied above (*see claim 1*). In addition the mobile inter-mesh communication point includes:

wherein the inter-mesh communication point is configured to be disposed in a vehicle having a vehicle battery for use in operating the vehicle ***(see paragraph [0037], lines 11-12, mounted in a vehicle, example, city bus)***, said mobile inter-mesh communication point being connected to said vehicle battery and obtaining power from said battery, the mobile intermesh communication point further comprising a battery discharge controller configured to monitor a battery level of the vehicle battery and to turn off the mobile inter-mesh communication point when the battery level of the vehicle battery drops below a threshold value and the vehicle is turned off . ***(See paragraph [0037], lines 5-7, 12V DC supply of the vehicle, which vehicles are equipped with vehicle battery monitoring systems, the communication point will turn off when the battery level is below a threshold point, i.e no longer able to power the access point).***

Regarding **Claim 14** Garahi et al. discloses everything as applied above (*see claim 1*). In addition the mobile inter-mesh communication point includes:

wherein the inter-mesh communication point is disposed in an emergency vehicle***(see paragraph[0037], lines 11-12, mounted in a vehicle, example, emergency vehicle)***, and wherein the second wireless mesh network port is configured to prioritize emergency traffic for transmission over the second wireless mesh network ***(see paragraph[0039], network includes a gate keeper, which can give priority to the second network).***

Regarding **Claim 15** Garahi et al. discloses a method of providing a dynamically adjusting mesh network topography, comprising:

enabling a first wireless mesh networking level implemented using at least one IEEE 802.11x standard, the first wireless mesh networking level implementing an access wireless mesh network ***(see fig. 3, section 134-1, transceiver 1, see paragraph [0037], line 2-3) paragraph [0034], lines 7-9, 2 ISM band, the transceivers transmits and receive at any frequency band including 802.11x standards, any frequency band reads on 802.11x standard)***;

enabling a mobile inter-mesh communication point to participate in both the first wireless mesh networking level and the second wireless mesh networking level, the first mobile inter-mesh communication point being mobile within each of the first an second wireless mesh networking levels***(see paragraph[0041], lines 2, mobile access point aggregate traffic to the core LAN)*** ; and

permitting a first mobile inter-mesh communication point to transmit data between the first wireless mesh networking level and the second wireless mesh networking level ***(see***

paragraph[0038], lines 9-12, the mobile access point utilize a self forming self healing radio access technology, that will allow the first communication point to transmit from a second level to prevent communication connection or loose of data packets, see paragraph[0040], lines 10-14) (see paragraph[0034], lines 7-9, the transceivers transmits and receive at any frequency band including 802.16x standards, any frequency band reads on 802.16x standard)

However Garahi et al. fails to specifically point out a first wireless mesh networking level implemented using at least one IEEE 802.11x standard and a second wireless mesh networking level implemented using at least one IEEE 802.16x standard, enabling a second wireless mesh networking level implemented using at least one IEEE 802.16x standard, the second wireless mesh networking level implementing a backhaul wireless mesh network as claimed.

Csapo et al. teaches a first wireless mesh networking level implemented using at least one IEEE 802.11x standard and a second wireless mesh networking level implemented using at least one IEEE 802.16x standard, enabling a second wireless mesh networking level implemented using at least one IEEE 802.16x standard, the second wireless mesh networking level implementing a backhaul wireless mesh network (see figure 2, see[0037], lines 1-15, access point includes 802.11 and 802.16 , the 802.16 interface as a backhaul network to communicate, 802.11 first level wireless is different from the second 802.16 backhaul network, see also [0038],lines 1-2, the access points may transfer data traffic between each other).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Garahi et al.'s invention with Csapo et al.'s invention because

Csapo et al.'s invention provides an access point for communicating with mobile stations located in coverage area of an integrated wireless network (see Csapo et al. [0008], lines 1-5).

Garahi et al. in view or Csapo et al. fail to specifically point out 802.16x as a backhaul as claimed.

However daCosta et al. teaches 802.16x as a backhaul (see [0091], backhaul is WiMAX)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Garahi et al. in view or Csapo et al. with daCosta et al. invention because daCosta et al.'s invention provides a solution to addressing hugh bandwidth requirements for a mission critical mesh network (see daCosta et al. [0028], lines 1-3).

Regarding **Claim 16** Garahi et al. discloses everything as applied above (*see claim 15*). In addition the method includes:

wherein the first mobile inter-mesh communication point is enabled to participate in the first mesh networking level as a relay point***(see paragraph[0039], line 9-11, mobile access point operate as a router enabling intercommunication between mobile terminal).***

Regarding **Claim 17** Garahi et al. discloses everything as applied above (*see claim 15*). In addition the method includes:

wherein the first mobile inter-mesh communication point is allowed to transmit onto the first mesh networking level while moving***(see paragraph [0042], line 1-3, mobile access points are moving at a relative constant rate).***

Regarding **Claim 18** Garahi et al. discloses everything as applied above (*see claim 15*). In addition the method includes:

further comprising selecting a second mobile inter-mesh communication point when the first mobile inter-mesh communication point moves away from users in the second mesh networking level ***(see paragraph [0038], lines 9-12, the mobile access point utilize a self forming self healing radio access technology, that will allow the first communication point to transmit from a second level to prevent communication connection or loose of data packets, see paragraph [0040], lines 10-14).***

Regarding **Claim 19** Garahi et al. discloses everything as applied above (*see claim 15*). In addition the method includes:

further comprising establishing policy on the first mesh networking level; and requesting the policy to be implemented by the first mobile inter-mesh communication point ***(see paragraph[0039], network includes a gate keeper, which gives policy to the first network).***

Regarding **Claim 20** Garahi et al. discloses everything as applied above (*see claim 15*). In addition the method includes:

further comprising not permitting the first mobile inter-mesh communication point to transmit onto the first mesh networking level data if the first mobile intermesh communication point fails to implement the policy***(see paragraph[0038], lines 9-12, the mobile access point utilize a self forming self healing radio access technology, that will allow the first communication point to transmit from a second level to prevent communication connection or loose of data packets, see paragraph[0040], lines 10-14) .***

Regarding **Claim 21** Garahi et al. discloses everything as applied above (*see claim 15*). In addition the method includes:

further comprising enabling a mobile inter-mesh communication point to transmit a limited amount of self-generated data onto the first level mesh network***(see paragraph[0039], line 12-17, mobile access point can used in conjunction with mobile terminals, which will create self generated data).***

Regarding **Claim 22** Garahi et al. discloses everything as applied above (*see claim 15*). In addition the method includes:

further comprising selectively activating and deactivating the mobile inter-mesh communication point depending on where the inter-mesh communication point is in the first level mesh network in relation to a traffic density on the first level mesh network***(see paragraph[0038], lines 9-12, the mobile access point utilize a self forming self healing radio access technology, that will allow the first communication point to transmit from a second level to prevent communication connection or loose of data packets, see paragraph[0040], lines 10-14) .***

Regarding **Claim 23** Garahi et al. discloses everything as applied above (*see claim 15*). In addition the method includes:

further comprising compensating an owner of a vehicle containing the first mobile inter-mesh communication point for permitting the first mobile inter-mesh communication point to transmit data between the first and second wireless mesh networking levels ***(see paragraph***

[0039], line 4-9, the network includes a AAA (authentication/authorization/accounting center, this center will be used to track all accounting including compensation).

Regarding **Claim 24** Garahi et al. discloses everything as applied above (*see claim 15*). In addition the method includes:

wherein compensating comprises at least one of:

providing free access to the first mesh networking level; providing reduced fee access to the first mesh networking level; paying based on an amount of traffic handled by the inter-mesh communication point; and crediting an account associated with the mobile inter-mesh communication point***(see paragraph[0039], line 4-9, the network includes a AAA(authentication/authorization/accounting center, compensation features(free access, reduced fee access, and crediting (accounting) are handled by the AAA center).***

Regarding **claim 27** Garahi et al. discloses a vehicle, comprising ***(see paragraph [0037], lines 11-12, mounted in a vehicle, example, city bus, see fig. 4, vehicle)***:

a mechanical system including a motor and vehicle controls configured to selectively enable the vehicle to move***(see paragraph[0037], lines 11-12, mounted in a vehicle, example, city bus, this is inherent in most vehicles)***;

an electrical system***(see paragraph[0037], lines 11-12, mounted in a vehicle, example, city bus, this inherent in most vehicles)***; and

an inter-mesh communication system connected to the electrical system and configured to communicate on two orthogonal mesh networks, to communicate on two orthogonal mesh networks, the inter-mesh communication system comprising a first wireless mesh network port configured to operate utilizing at least one of the IEEE 802.11x standard, to participate on a first level wireless mesh network implemented using the at least one 802.11x standard, the first level wireless mesh network implementing an access network, and a second wireless mesh network port configured to operate; ***(see fig. 4, section 146, vehicle and section 132, mobile access point, see paragraph[0025], lines1-3, mobile access point with two networks are attached to vehicle, (see fig. 3, section 134-1, transceiver 1, and section 138-1, antenna 1, (mesh network one) and section 134-2, transceiver 2, and section 138-2, antenna 2 (mesh network two)) (see paragraph[0034], lines 7-9, the transceivers transmits and receive at any frequency band including 802.16x standards and 802.11x, any frequency band reads on 802.16x standard and 802.11x)***

However Garahi et al. fails to specifically point out a first wireless mesh network port configured to operate utilizing at least one of the IEEE 802.11x standard and a second wireless mesh network port configured to operate utilizing one least one of the IEEE 802.16x standard to participate on a second level wireless mesh network implemented using the at least one 802.16x standard, the second level wireless mesh network implementing a backhaul network to interconnect the access network to higher bandwidth communication resources as claimed.

Csapo et al. teaches a first wireless mesh network port configured to operate utilizing at least one of the IEEE 802.11x standard and a second wireless mesh network port configured to operate utilizing one least one of the IEEE 802.16x standard to participate on a second level wireless mesh network implemented using the at least one 802.16x standard, the second level wireless mesh network implementing a backhaul network to interconnect the access network to higher bandwidth communication resources (see figure 2, see[0037], lines 1-15, access point includes 802.11 and 802.16 , the 802.16 interface as a backhaul network to communicate, 802.11 first level wireless is different from the second 802.16 backhaul network).

Csapo et al. teaches wherein the inter-mesh communication system is active on both the first and second level wireless mesh network at the same time and services to route traffic between the first and second level wireless mesh networks (see [0037],lines 1-14 the access points is capable of communicating with one or more of the BTS by means of CDMA2000, IX/EV/DO, EDGE, WCDMA, or IEEE 802.16)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Garahi et al.'s invention with Csapo et al.'s invention because Csapo et al.'s invention provides an access point for communicating with mobile stations located in coverage area of an integrated wireless network (see Csapo et al. [0008], lines 1-5).

Garahi et al. in view or Csapo et al. fail to specifically point out 802.16x as a backhaul as claimed.

However daCosta et al. teaches 802.16x as a backhaul (see [0091], backhaul is WiMAX)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Garahi et al. in view or Csapo et al. with daCosta et al. invention because daCosta et al.'s invention provides a solution to addressing hugh bandwidth requirements for a mission critical mesh network (see daCosta et al. [0028], lines 1-3).

Response to Arguments

4. Applicant's arguments filed 5/11/2009 have been fully considered but they are not persuasive.

In the remarks on pg. 2-4 of the amendment, the applicant contends that Csapo does not teach or suggest “802.16x backhaul network”

Examiner acknowledges the applicants’ documentation of the added matter for CIP Csapo et al..

However, examiner respectfully disagrees, Csapo teaches 802.xx which is broad and inclusive of 802.16. Also it would have been obvious to one with ordinary skill of the art at the time the invention was made to use 802.16x as a backhaul network as stated in daCosta et al. which uses WiMAX backhaul.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MON CHERI S. DAVENPORT whose telephone number is (571)270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mon Cheri S Davenport/
Examiner, Art Unit 2416
July 14, 2009

/Donald L Mills/
Primary Examiner, Art Unit 2416